

MONTANA STATE DEPARTMENT OF FISH AND GAME
FEDERAL AID IN FISH RESTORATION SECTION

HELENA, MONTANA

Job Completion Report
Development ProjectState of MontanaProject No. F-24-D-20Name Southeastern Montana Fishery StudyPeriod Covered May 1, 1959 to April 30, 1960. Title Statewide Lake and Stream Rehabilitation
Lost LakeAbstract:

August, 1959, Lost Lake was treated with a mixture of 55 gallons of Pro-Noxfish poison and 3 gallons of toxaphene. The toxicant was aerially applied to the Lake. Suckers were the principal fish species killed. Efforts will be made to establish a fish population by plantings of cutthroat trout fingerlings.

Objectives:

Lost Lake is an alpine lake located in Custer National Forest, accessible only by horse trail. The fish population consisted of brook trout and suckers; the latter probably was introduced by fishermen using them as bait. The sucker population, in addition to limiting the production of desirable fish in the lake, was a potential source of contamination of other nearby waters. Rehabilitation was carried out so the sucker population might be eliminated from the Lake Fork of Rock Creek watershed.

Techniques Used:

Application of toxicants to Lost Lake was made by aerial spraying. The spray nozzles were removed from the spray booms so that the toxicant was applied by small drops. A mixture of 55 gallons of Pro-Noxfish, a commercial rotenone-base toxicant; 3 gallons of toxaphene; and 20 gallons of water were utilized for rehabilitation. Toxaphene was used because it remains toxic for a longer period of time than the rotenone-based toxicant. Toxaphene was expected to kill any sucker fry that might hatch later in the summer. Pro-Noxfish was applied at the rate of two (2) parts per million and toxaphene was applied at the rate of 0.05 parts per million.

Findings:

Approximately 10 hours after application of the toxicants the fish had windrowed about the shoreline. No live fish could be observed from the shoreline the evening following application or the next morning. Almost 90 per cent of the dead fish observed from the shoreline were suckers. The lake has no surface inlet under normal summer conditions and the outlet flows less than 1/2 cubic foot per second. No live fish were observed in the outlet.

Prepared by John Peters and Perry NelsonApproved by George D. HoltonDate May 6, 1960